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SEQUENCE LISTING

<110> Chiron Corporation

Kyoto University

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Kavanaugh, Michael W.

<120> HUMAN FGF-20 GENE AND GENE EXPRESSION
PRODUCTS

<130> 60219-6/16770.001

<140> 09/692,945

<141> 2000-10-20

<160> 17

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 648

<212> DNA

<213> Rattus norvegicus

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<212> PRT

<213> Rattus norvegicus

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35 40 45
Arg Gly Gly Pro Gly Ser Val Glu Leu Ala His Leu His Gly Ile Leu
50 55 60
Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
65 70 75 80
Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
85 90 95
Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
100 105 110

Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Gly Lys Gly Glu Leu Tyr
 115 120 125
 Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
 130 135 140
 Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
 145 150 155 160
 Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
 165 170 175
 Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
 180 185 190
 Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
 195 200 205
 Val Tyr Thr Gly
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<210> 3
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<210> 4
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 Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala
 35 40 45
 Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu
 50 55 60
 Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
 65 70 75 80
 Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
 85 90 95
 Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
 100 105 110
 Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr
 115 120 125
 Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
 130 135 140
 Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp

a!
 Cont

145 150 155 160
 Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
 165 170 175
 Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
 180 185 190
 Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
 195 200 205
 Met Tyr Thr
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<210> 5
 <211> 14
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<220>
 <223> Oligopeptides for raising antibodies

<400> 5
 Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His
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<210> 6
 <211> 15
 <212> PRT
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<220>
 <223> Oligopeptides for raising antibodies

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 Gln Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr
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<210> 7
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Residues which can be incorporated into FGF-20 to
 allow myc monoclonal antibody-based affinity
 purification.

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<210> 8
 <211> 5
 <212> PRT
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<220>
 <223> Preferred thrombin cleavage site.

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 Leu Val Pro Arg Gly

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1 5
 <210> 9
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Sequence which can be incorporated to allow for
 purification of FGF-20 because of its ability to
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<400> 9
 Ser Ala Trp Arg His Pro Gln Phe Gly Gly
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<210> 10
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<220>
 <223> Consensus amino acid sequences used to create
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<400> 10
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<210> 11
 <211> 6
 <212> PRT
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 <223> Consensus amino acid sequences used to create
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<210> 12
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid sequences used to create
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 Glu Asn Trp Tyr Asn Thr
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<210> 13
 <211> 6
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<213> Artificial Sequence

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<223> Consensus amino acid sequences used to create sense and anti-sense PCR primers.

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<210> 14

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<212> PRT

<213> Artificial Sequence

<220>

<223> E-tag

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Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu Glu Pro Arg
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<210> 15

<211> 6

<212> PRT

<213> Artificial Sequence

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<223> His tag

<400> 15

His His His His His His
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<210> 16

<211> 208

<212> PRT

<213> Rattus norvegicus

<400> 16

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Leu	Ser	Asp	His	Leu	Gly	Gln	Ser	Glu	Ala	Gly	Gly	Leu	Pro	Arg	Gly	35	40	45	
Pro	Ala	Val	Thr	Asp	Leu	Asp	His	Leu	Lys	Gly	Ile	Leu	Arg	Arg	Arg	50	55	60	
Gln	Leu	Tyr	Cys	Arg	Thr	Gly	Phe	His	Leu	Glu	Ile	Phe	Pro	Asn	Gly	65	70	75	80
Thr	Ile	Gln	Gly	Thr	Arg	Lys	Asp	His	Ser	Arg	Phe	Gly	Ile	Leu	Glu	85	90	95	
Phe	Ile	Ser	Ile	Ala	Val	Gly	Leu	Val	Ser	Ile	Arg	Gly	Val	Asp	Ser	100	105	110	
Gly	Leu	Tyr	Leu	Gly	Met	Asn	Glu	Lys	Gly	Glu	Leu	Tyr	Gly	Ser	Glu	115	120	125	
Lys	Leu	Thr	Gln	Glu	Cys	Val	Phe	Arg	Glu	Gln	Phe	Glu	Glu	Asn	Trp	130	135	140	

a
cont

Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg
 145 150 155 160
 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr
 165 170 175
 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val
 180 185 190
 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu Ser Gln Ser
 195 200 205

<210> 17

<211> 207

<212> PRT

<213> Rattus norvegicus

<400> 17

Met Ala Glu Val Gly Gly Val Phe Ala Ser Leu Asp Trp Asp Leu Gln
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 Gly Phe Ser Ser Ser Leu Gly Asn Val Pro Leu Ala Asp Ser Pro Gly
 20 25 30
 Phe Leu Asn Glu Arg Leu Gly Gln Ile Glu Gly Lys Leu Gln Arg Gly
 35 40 45
 Ser Pro Thr Asp Phe Ala His Leu Lys Gly Ile Leu Arg Arg Arg Gln
 50 55 60
 Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly Thr
 65 70 75 80
 Val His Gly Thr Arg His Asp His Ser Arg Phe Gly Ile Leu Glu Phe
 85 90 95
 Ile Ser Leu Ala Val Gly Leu Ile Ser Ile Arg Gly Val Asp Ser Gly
 100 105 110
 Leu Tyr Leu Gly Met Asn Glu Arg Gly Glu Leu Phe Gly Ser Lys Lys
 115 120 125
 Leu Thr Arg Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr
 130 135 140
 Asn Thr Tyr Ala Ser Thr Leu Tyr Lys His Ser Asp Ser Glu Arg Gln
 145 150 155 160
 Tyr Tyr Val Ala Leu Asn Lys Asp Gly Ser Pro Arg Glu Gly Tyr Arg
 165 170 175
 Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp
 180 185 190
 Pro Ser Lys Leu Pro Ser Met Ser Arg Asp Leu Phe Arg Tyr Arg
 195 200 205